IN THE CLAIMS

1   1. (currently amended) A method of managing dialogue in an interactive voice response system

2   (IVR) comprising the steps of:

3   receiving a voice signal from a caller to the IVR;

4   converting the voice signal to text;

5   estimating a caller type based on the number of words of a particular type within the text,

6   wherein the caller type is based on the caller's level of competence for using the IVR system;

7   and

8   using the caller type to make a dialogue decision, wherein making the dialog decision

9   comprises determining a type of automatic response to provide to the caller.

    2. (cancelled)

1   3. (currently amended) ~~The method as in claim 1~~ A method of managing dialogue in an

2   interactive voice response system (IVR) comprising the steps of:

3   receiving a voice signal from a caller to the IVR;

4   converting the voice signal to text;

5   estimating a caller type based on the number of words of a particular type within the text,

6   wherein the caller type is based on a word ratio; and

7   using the caller type to make a dialogue decision.

1   4. (currently amended) ~~The method as in claim 1, further comprising the steps of~~ A method of

2   managing dialogue in an interactive voice response system (IVR) comprising the steps of:

3   receiving a voice signal from a caller to the IVR;

4   converting the voice signal to text;

5   estimating a caller type based on the number of words of a particular type within the text;

6   using the caller type to make a dialogue decision;

7 locating a word type flag in a dictionary for each word in the text;

8 incrementing a word type counter depending on the flag; and

9 estimating the caller type using the word type counter.

1 5. (original) The method as in claim 4, further comprising the steps of:

2 identifying more than one word type from the word type flag; and

3 incrementing more than one word type counter.

1 6. (original) The method as in claim 5, further comprising the step of identifying from each bit

2 of the word type flag whether a word is a certain type, each bit of the word type flag being

3 associated with one word type.

1 7. (original) The method as in claim 1, wherein the using step further comprises the step of

2 making the dialogue decision on which prompt to present next to the caller as a function of the

3 estimated caller type.

1 8. (currently amended) ~~The method as in claim 7~~ A method of managing dialogue in an

2 interactive voice response system (IVR) comprising the steps of:

3 receiving a voice signal from a caller to the IVR;

4 converting the voice signal to text;

5 estimating a caller type based on the number of words of a particular type within the text;

6 and

7 using the caller type to make a dialogue decision whether to use expert or novice prompts

8 to the caller, wherein the using step further comprises the step of making the dialogue decision

9 on which prompt to present next to the caller as a function of the estimated caller type, wherein

10 the dialogue decision whether to use expert or novice prompts is made depending on whether the

11 caller type is above or below a threshold value.

1 9. (currently amended) ~~The method as in claim 7~~ A method of managing dialogue in an

2 interactive voice response system (IVR) comprising the steps of:

3   receiving a voice signal from a caller to the IVR;

4   converting the voice signal to text;

5   estimating a caller type based on the number of words of a particular type within the text;

6 and

7   using the caller type to make a dialogue decision on which prompt to present next to the

8 caller, wherein the using step further comprises the step of making the dialogue decision on

9 which prompt to present next to the caller as a function of the estimated caller type, wherein a

10 decision whether to use expert, intermediate, or novice prompts is made depending on whether

11 the caller type falls below, inside or above a threshold range.

1 10. (original) The method as in claim 1, wherein one word type is made up of words relevant to

2 the context of the dialogue.

1 11. (original) The method as in claim 10, wherein another word type is made up of words

2 relevant to the context of a task specific part of the dialogue.

1 12. (currently amended) ~~The method as in claim 10~~ A method of managing dialogue in an

2 interactive voice response system (IVR) comprising the steps of:

3   receiving a voice signal from a caller to the IVR;

4   converting the voice signal to text;

5   estimating a caller type based on the number of words of a particular type within the text,

6 wherein one word type is made up of words relevant to the context of the dialogue, wherein a

7 number of words per second spoken by the caller is used together with the context type to give a

8 further approximation as to a competence of the caller; and

9   using the caller type to make a dialogue decision.

1   13. (original) The method as in claim 12, wherein the context ratio and the number of words per

2   second are weighted and combined to give an overall factor having a threshold value or range to

3   decide the competence of the caller.

1   14.   (currently amended)   A system for managing dialogue in an interactive voice response

2   system (IVR) comprising:

3   the IVR receiving a voice signal from a caller;

4   an automatic speech recognition system (ASR) converting the voice signal to text;

5   a lexical analyzer estimating a caller type based on the number of words of a particular

6   type within the text wherein the caller type is based on the caller's level of competence for using

7   the IVR system; and

8   a prompt generator using the caller type to make a dialogue decision wherein making the

9   dialog decision comprises determining a type of automatic verbal response to provide to the

10 caller.

    15. (cancelled)

1   16.   (currently amended)   ~~The system as in claim 14~~ A system for managing dialogue in an

2   interactive voice response system (IVR) comprising:

3   the IVR receiving a voice signal from a caller;

4   an automatic speech recognition system (ASR) converting the voice signal to text;

5   a lexical analyzer estimating a caller type based on the number of words of a particular

6   type within the text, wherein the caller type is based on a word ratio; and

7   a prompt generator using the caller type to make a dialogue decision.

1   17. (currently amended) ~~The system as in claim 14, further comprising:~~

2   A system for managing dialogue in an interactive voice response system (IVR) comprising:
3   the IVR receiving a voice signal from a caller;
4   an automatic speech recognition system (ASR) converting the voice signal to text;
5   a lexical analyzer estimating a caller type based on the number of words of a particular
6   type within the text;
7   a prompt generator using the caller type to make a dialogue decision;
8   a search engine locating a word type flag in a dictionary for each word in the text;
9   account engine incrementing a word type counter depending on the flag; and
10   the lexical analyzer estimating the caller type using the word type counter.

1   18. (original) The system as in claim 17, further comprising:
2   the search engine identifying more than one word type from the word type flag; and
3   the count engine incrementing more than one word type counter.

1   19. (original) The system as in claim 18, further comprising the search engine identifying from
2   each bit of the word type flag whether a word is a certain type, each bit of the word type flag
3   being associated with one word type.

1   20. (original) The system as in claim 14, wherein the prompt generator makes the dialogue
2   decision on which prompt to present next to the caller as a function of the estimated caller type.

1   21. (currently amended) ~~The system as in claim 20~~ A system for managing dialogue in an
2   interactive voice response system (IVR) comprising:
3   the IVR receiving a voice signal from a caller;
4   an automatic speech recognition system (ASR) converting the voice signal to text;

5   a lexical analyzer estimating a caller type based on the number of words of a particular

6   type within the text; and

7   a prompt generator using the caller type to make a dialogue decision, wherein the prompt

8   generator makes the dialogue decision on which prompt to present next to the caller as a function

9   of estimated caller type, wherein the dialogue decision whether to use expert or novice prompts

10   is made depending on whether the caller type is above or below a threshold value.

1   22.   (currently amended)   ~~The system as in claim 20~~ A system for managing dialogue in an

2   interactive voice response system (IVR) comprising:

3   the IVR receiving a voice signal from a caller;

4   an automatic speech recognition system (ASR) converting the voice signal to text;

5   a lexical analyzer estimating a caller type based on the number of words of a particular

6   type within the text; and

7   a prompt generator using the caller type to make a dialogue decision whether to use

8   expert or novice prompts, wherein the prompt generator makes the dialogue decision on which

9   prompt to present next to the caller as a function of the estimated caller type, wherein a decision

10   whether to use expert, intermediate, or novice prompts is made depending on whether the caller

11   type falls below, inside or above a threshold range.

1   23. (original) The system as in claim 14, wherein one word type is made up of words relevant to

2   the context of the dialogue.

1   24. (original) The system as in claim 23, wherein another word type is made up of words

2   relevant to the context of a task specific part of the dialogue.

1   25.   (currently amended)   ~~The system as in claim 23~~A system for managing dialogue in an

2   interactive voice response system (IVR) comprising:

3   the IVR receiving a voice signal from a caller;

4   an automatic speech recognition system (ASR) converting the voice signal to text;

5   a lexical analyzer estimating a caller type based on the number of words of a particular

6   type within the text, wherein one word type is made up of words relevant to the context of the

7   dialogue, wherein a number of words per second spoken by the caller is used together with the

8   context type to give a further approximation as to a competence of the caller; and

9   a prompt generator using the caller type to make a dialogue decision.

1   26. (original) The system as in claim 25, wherein the context ratio and the number of words per

2   second are weighted and combined to give an overall factor having a threshold value or range to

3   decide the competence of the caller.

1   27. (currently amended) A computer program product, stored on a computer-readable storage

2   medium, for executing computer program instructions to carry out the steps of a method of

3   managing dialogue in an interactive voice response system (IVR) comprising the program steps

4   of:

5   in response to receipt of a voice signal from a caller to the IVR, converting the voice

6   signal to text;

7   estimating a caller type based on the number of words of a particular type within the text

8   wherein the caller type is based on the caller's level of competence for using the IVR system;

9   and

10   using the caller type to make a dialogue decision wherein making the dialog decision

11   comprises determining a type of automatic verbal response to provide to the caller.

28. (cancelled)

1   29. (currently amended) ~~The computer program product as in claim 27~~ A computer program

2   product, stored on a computer-readable storage medium, for executing computer program

3   instructions to carry out the steps of a method of managing dialogue in an interactive voice

4   response system (IVR) comprising the program steps of:

5   in response to receipt of a voice signal from a caller to the IVR, converting the voice

6   signal to text;

7   estimating a caller type based on the number of words of a particular type within the text,

8   wherein the caller type is based on a word ratio; and

9   using the caller type to make a dialogue decision.

1   30. (currently amended) ~~The computer program product as in claim 27, further comprising the~~

2   ~~program steps of:~~ A computer program product, stored on a computer-readable storage medium,

3   for executing computer program instructions to carry out the steps of a method of managing

4   dialogue in an interactive voice response system (IVR) comprising the program steps of:

5   in response to receipt of a voice signal from a caller to the IVR, converting the voice

6   signal to text;

7   estimating a caller type based on the number of words of a particular type within the text;

8   using the caller type to make a dialogue decision;

9   locating a word type flag in a dictionary for each word in the text;

10   incrementing a word type counter depending on the flag; and

11   estimating the caller type using the word type counter.

1   31. (original) The computer program product as in claim 30, further comprising the program

2   steps of:

3   identifying more than one word type from the word type flag; and

4   incrementing more than one word type counter.

1   32. (original) The computer program product as in claim 31, further comprising the program

2   step of identifying from each bit of the word type flag whether a word is a certain type, each bit

3   of the word type flag being associated with one word type.

1   33. (original) The computer program product as in claim 27, wherein the using program step
2   further comprises the program step of making the dialogue decision on which prompt to present
3   next to the caller as a function of the estimated caller type.

1   34. (currently amended) ~~The computer program product as in claim 33~~ A computer program
2   product, stored on a computer-readable storage medium, for executing computer program
3   instructions to carry out the steps of a method of managing dialogue in an interactive voice
4   response system (IVR) comprising the program steps of:
5   in response to receipt of a voice signal from a caller to the IVR, converting the voice
6   signal to text;
7   estimating a caller type based on the number of words of a particular type within the text;
8   and
9   using the caller type to make a dialogue decision whether to use expert or novice
10   prompts, wherein the using program step further comprises the program step of making the
11   dialogue decision on which prompt to present next to the caller as a function of the estimated
12   caller type, wherein the dialogue decision whether to use expert or novice prompts is made
13   depending on whether the caller type is above or below a threshold value.

1   35. (currently amended) ~~The computer program product as in claim 33~~ A computer program
2   product, stored on a computer-readable storage medium, for executing computer program
3   instructions to carry out the steps of a method of managing dialogue in an interactive voice
4   response system (IVR) comprising the program steps of:
5   in response to receipt of a voice signal from a caller to the IVR, converting the voice
6   signal to text;
7   estimating a caller type based on the number of words of a particular type within the text;
8   and

9   using the caller type to make a dialogue decision on which prompt to present next to the
10   caller, wherein the using program step further comprises the program step of making the

11   dialogue decision on which prompt to present next to the caller as a function of the estimated

12   caller type, wherein a decision whether to use expert, intermediate, or novice prompts is made

13   depending on whether the caller type falls below, inside or above a threshold range.

1   36. (original) The computer program product as in claim 27, wherein one word type is made up

2   of words relevant to the context of the dialogue.

1   37. (original) The computer program product as in claim 36, wherein another word type is made

2   up of words relevant to the context of a task specific part of the dialogue.

1   38. (currently amended) ~~The computer program product as in claim 36~~ A computer program

2   product, stored on a computer-readable storage medium, for executing computer program

3   instructions to carry out the steps of a method of managing dialogue in an interactive voice

4   response system (IVR) comprising the program steps of:

5   in response to receipt of a voice signal from a caller to the IVR, converting the voice

6   signal to text;

7   estimating a caller type based on the number of words of a particular type within the text,

8   wherein one word type is made up of words relevant to the context of the dialogue, wherein a

9   number of words per second spoken by the caller is used together with the context type to give a

10   further approximation as to a competence of the caller;

11   using the caller type to make a dialogue decision.

1   39. (original) The computer program product as in claim 38, wherein the context ratio and the

2   number of words per second are weighted and combined to give an overall factor having a

3   threshold value or range to decide the competence of the caller.